



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,291	01/31/2002	Ian Tunnicliffe	00017/01UTL	2032
23873	7590	09/20/2005	EXAMINER	
ROBERT W STROZIER, P.L.L.C			MARKOFF, ALEXANDER	
PO BOX 429			ART UNIT	
BELLAIRE, TX 77402-0429			PAPER NUMBER	
			1746	
DATE MAILED: 09/20/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/066,291

Applicant(s)

TUNNICLIFFE ET AL.

Examiner

Alexander Markoff

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-9, 14-16 and 25-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-9, 14-16 and 25-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 2-9, 14-16 and 25-38 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The method without extraction and separation steps, which are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The contacting step alone would not produce a clean material. The contacting step would only produce a mixture of the fluid, the material, and contaminants. The essential steps needed to produce a clean material are not included in the claims.
3. Claims 25 and 14-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims are not enabled because they require removal of water and water soluble components to produce an aqueous product. Removal of water would produce non-aqueous product.
4. Claims 5-9, 14-16 and 25-37 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specific products, does not

Art Unit: 1746

reasonably provide enablement for any non-specified composition comprising non-specified products. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-9, 14-16 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-9 and 26-37 are indefinite because the terms "the solids product", "the non aqueous fluid product", "the aqueous product", etc. lack proper antecedent basis. It is absolutely not clear what is referenced as these "products".

Claim 25 is indefinite because the terms "the treated material", "the solids", the fluid", "the extraction fluid" lack proper antecedent basis.

The claim is also indefinite because it is not clear from the claim concurrently with what the water should be removed.

Claims 14-16 are indefinite because of the deficiencies of claim 25.

***Response to Amendment***

7. It is noted, that claim 3 now recites "CO" in line 2, instead "CO<sub>2</sub>". The applicants have not indicated this change as amendment. Such amendment is not supported by the specification. It is reasonably believed that the change is due to a typing mistake. The claim is interpreted accordingly as reciting CO<sub>2</sub>. However, clarification is requested.

However, if the applicants indeed intended to amend the claim to recite CO, the claim should be considered as rejected under 35 USC 112 (1) as not supported by the original disclosure and the amendment should be considered as objected as introducing new matter to the disclosure and should be canceled.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

***Election/Restrictions***

9. The product-by-process claims presented now are indefinite and their scope is unclear. These claims were interpreted to the best examiner's understanding of what is claimed. It is noted that when the referenced claims be placed in correspondence with requirements 35 USC 112 a restriction and/or election requirement could be issued by the examiner.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1746

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 38, 2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by the publication of Critical Fluid Systems Inc. (CFSI).

The CFSI teaches a method as claimed. See entire document, especially the part Critical Fluid Extraction.

Since the CFSI discloses the same manipulative steps as claimed the results recited by claim 7, and products recited 14-16 are inherently disclosed.

12. Claims 14, 26, 29, 32, 35 are rejected under 35 U.S.C. 102(b) as being anticipated by soil.

The claims recite a composition comprising non-specified solids, solids substantially free from hydrocarbons and contaminants or soil. Any non-contaminated soil meets the recited limitations.

13. Claims 15, 27, 30, 33, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by oil.

Oil meets the recited limitations.

14. Claims 16, 28, 31, 34, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by water.

Water meets the recited limitations.

### ***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1746

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication of Critical Fluid Systems Inc. (CFSI).

The CFSI teaches the claimed method except for the use of a mixture of carbon dioxide with other disclosed fluids. However, it would have been obvious to an ordinary artisan at the time the invention was made to use a mixture of the disclosed fluids with reasonable expectation of adequate results in order to more completely remove contaminants using different solubility properties of the different fluids.

### ***Response to Arguments***

18. Applicant's arguments filed 6/27/05 have been fully considered but they are not persuasive.

The applicants filed an amendment adding claim 38, which is identical to previously rejected and cancelled claim 1. The applicants made all the claims dependent directly or indirectly from claim 38. At the same time the applicants in their arguments rely on the limitations of claim 25, not on the limitations of claim 38. It is

Art Unit: 1746

noted that only claims 14-16 depend from claim 25. The limitations of claim 25, 14-16 and newly filed claims 26-37 are addressed in the rejections above. The rejections previously applied to claim 1 and dependent claims are now applied to claim 38 and dependent claims.

It is noted that cancellation of claim and filing a new claim, which is substantially the same as previously rejected claim does not obviate the rejection.

It is also noted that the applicant's arguments, which made with respect to the rejections made under 35 USC 102, could not be fully understood because the referenced arguments comprise not complete sentences or because some text is missing in the Remarks.

The following is a citation of the applicants arguments, which is referenced by the examiner:

*Applicants have canceled claims 1, 10-13 and 17-24, obviating this rejection as it pertains to these claims. Applicants have added new claim 38, which is substantially the same as claim 1. CFSI does not disclose the cleaning of material that includes Applicants have added new claim.25. New claim 25 includes a tubular reactor not disclosed in the CFSI article. Because the method of claim 25 is not identically disclosed in the CFSI article, the CFSI article cannot anticipate claim 25 and its dependents. Applicants, therefore, respectfully request withdrawal of this § 102(b) rejection.*

It is also noted that the rejections were made under 35 USC 103 and 35 USC 102, not under 35 US0 102 and 35 US0 103 as stated by the applicants.



With respect to the rejection of claim 3 made under 35 USC 103 the applicants rely on the limitations of claim 25. This is not persuasive because claim 3 depends on claim 38, not on claim 25 and does not comprise the referenced limitations.

### ***Conclusion***

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

Art Unit: 1746

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Markoff  
Primary Examiner  
Art Unit 1746

AM

**ALEXANDER MARKOFF  
PRIMARY EXAMINER**